Short advice for
Giving a Scientific Presentation

Henrik Beuther & Christian Fendt
Slides based on Jouni Kainulainen

A scientific presentation is…

… not just about **providing** information…
(wikipedia is for that)

… but about **making the audience absorb** information.

Your "time of fame"

A scientific presentation is…

Content

+ Important
+ Relevant to the audience
+ Simple(!)

Delivery

+ Engaging
+ Credible
+ Entertaining

Content: scientific presentation/paper

Introduction (what and why?)

Methods (how?)

Results (what comes out?)

Conclusions (what was learned?)

Content: this seminar

Introduction

Detailed review of the topic

Conclusions

Content: this seminar

Introduction

- What is the Big Picture?
- Why should the audience be interested?

Detailed review of the topic

Conclusions

Content: this seminar

Introduction

- What is the Big Picture?
- Why should the audience be interested?

Detailed review of the topic

- What is the State-of-the-Art of our knowledge?
- What are the specific science questions?
- What are the key methodologies to address them?
- What questions remain open?
- How can those questions be assessed in the future?

Conclusions

Content: this seminar

Introduction

- What is the Big Picture?
- Why should the audience be interested?

Detailed review of the topic

- What is the State-of-the-Art of our knowledge?
- What are the specific science questions?
- What are the key methodologies to address them?
- What questions remain open?
- How can those questions be assessed in the future?

Conclusions

- Take-home message (repetition!), max. 3 points!

Delivery:

Tell a story

Delivery:

Tell a story

Build contradictions
(science is full of them!)

Star formation rate
of Milky-Way-like galaxies

Predicted: Measured:

~300 M_{sun} / yr   ~2 M_{sun} / yr

Delivery:

Tell a story

Build contradictions
(science is full of them!)

Build on figures, not words

Delivery: tips

Speak slowly and clearly

Avoid monotonic speech:

    Emphasise, take breaks, ask questions, use humour.

Body-language:

    Eye contact, posture, use of the stick/laser.

Delivery: technical tips

The length:

+ 1.5-2 min per slide
+ Too few is (much) better than too many

Slide design:

+ Simple slides
+ One topic/result per slide
+ No unessential information
+ Max ~5 bullet points
+ No mixed fonts, sizes, colours

Lorem Ipsum

- **Magnis aute volupti scimus dolupta tiusdam, ommodioris exceperepe vit autatem porio.**

- **Tem fugit mi, sum rerumet landam, qui vel eaquid ulliqui derovit entum nis doluptusae niendit volupta tincide ssende**
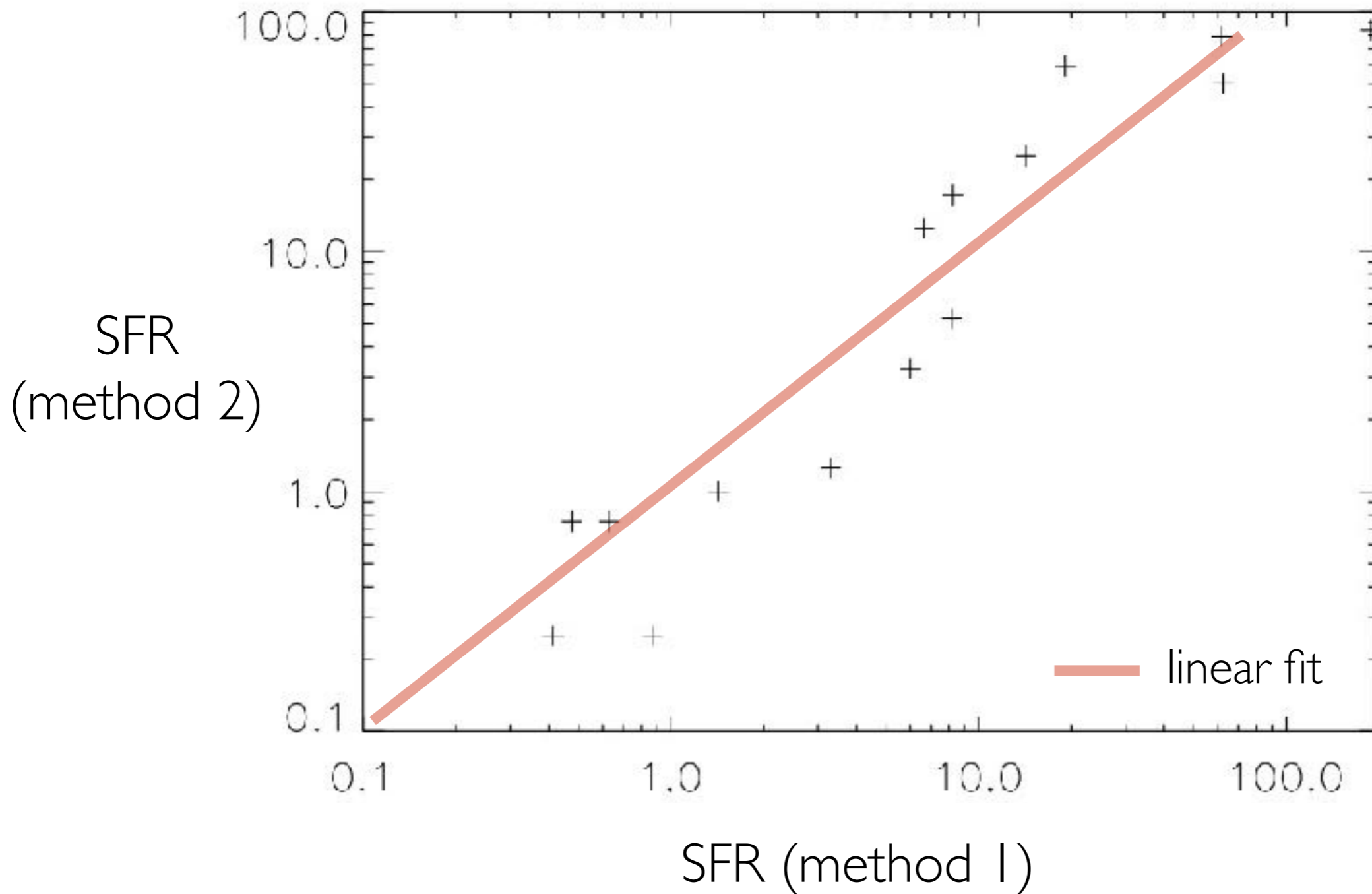
- **Voluptas aliberf errumet possin et es minis dolecab iunt ressint a cuptas aligeni hilicaborrum recturem ra quia simo**

- **Tem quis rectur modis quatios quia aut fuga es cuscium**
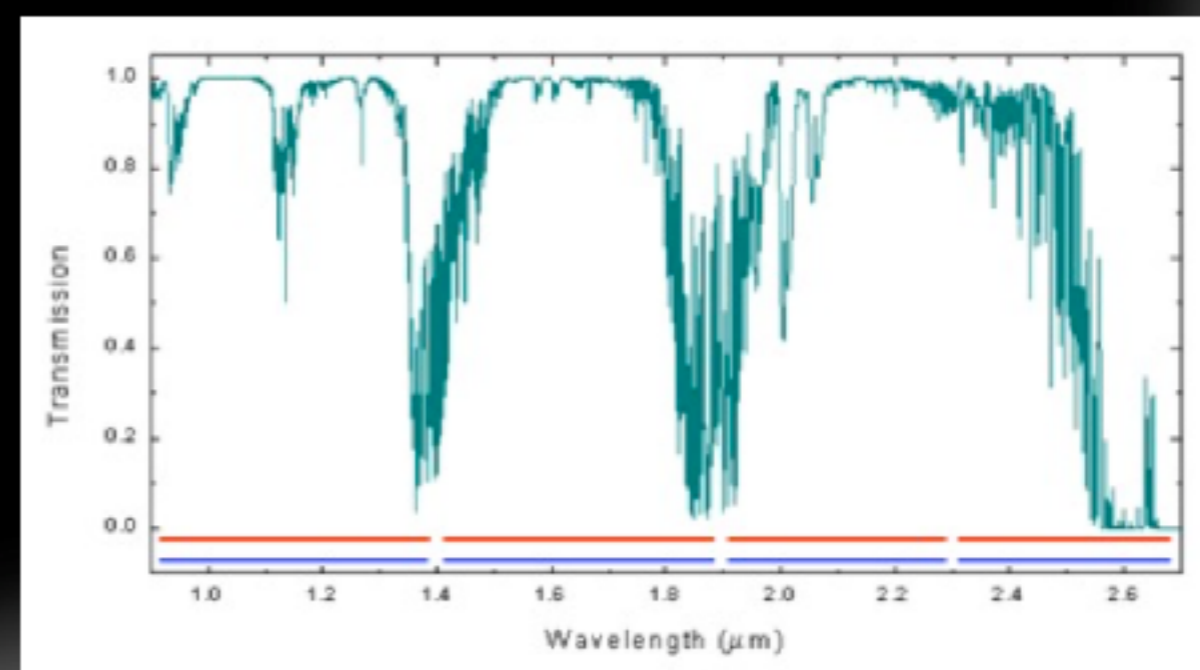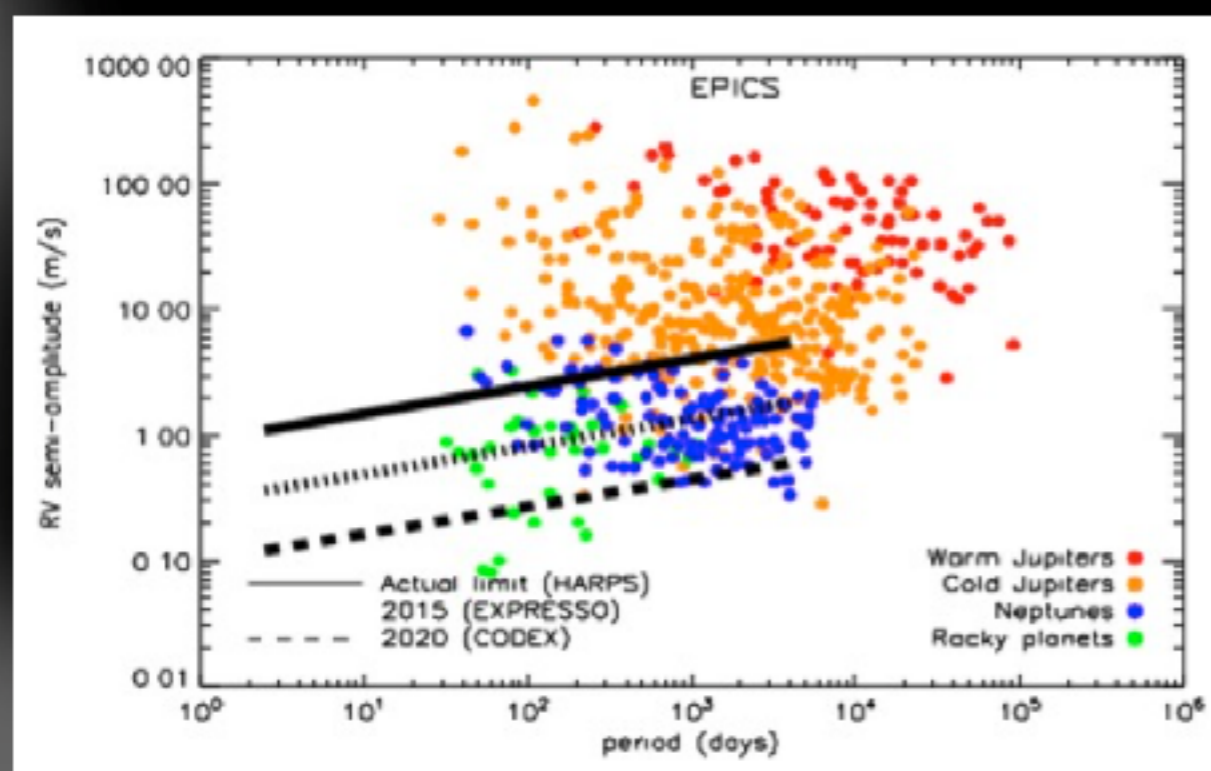
The main result:

star formation rates (SFR) derived with the two methods agree

SFR
(method 2)

SFR (method 1)

— linear fit

Delivery: Technical tips

Practice:

+ Practice <u>at least</u> twice.
+ Remain flexible; make time-marks and exit points.
+ Learn the first and last 3 sentences "by heart".
+ Use presenter's tools (but don't rely on them).

In the end

When in doubt, **stick to these rules**…

… When not, **break them** to let your personality show.